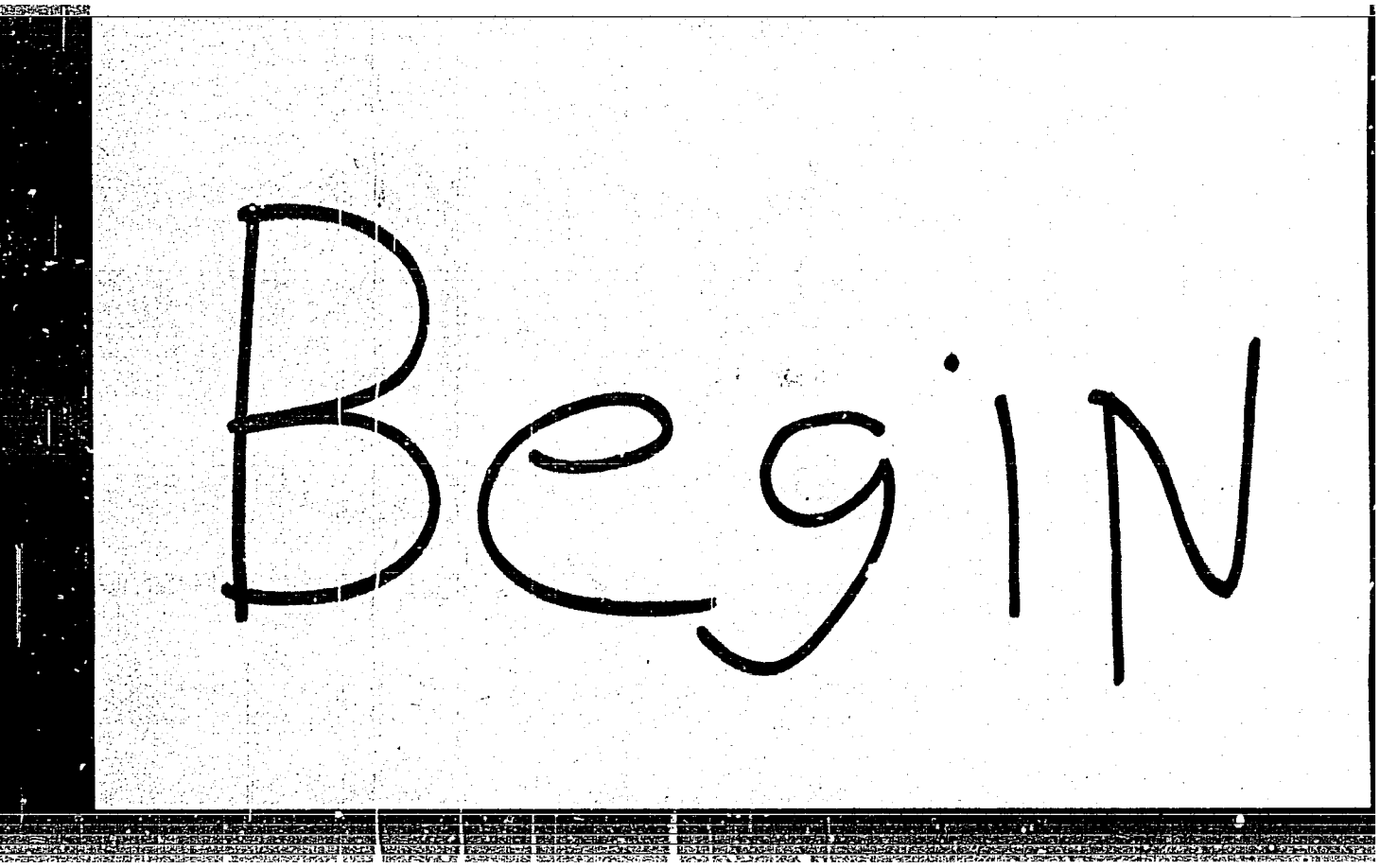
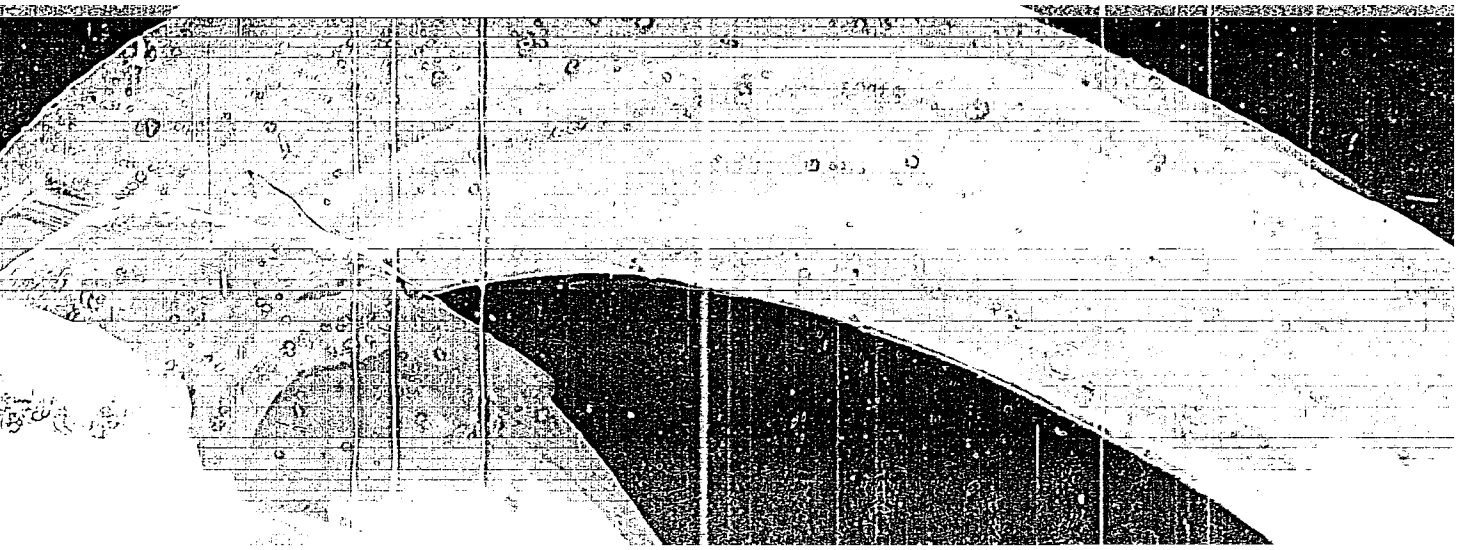
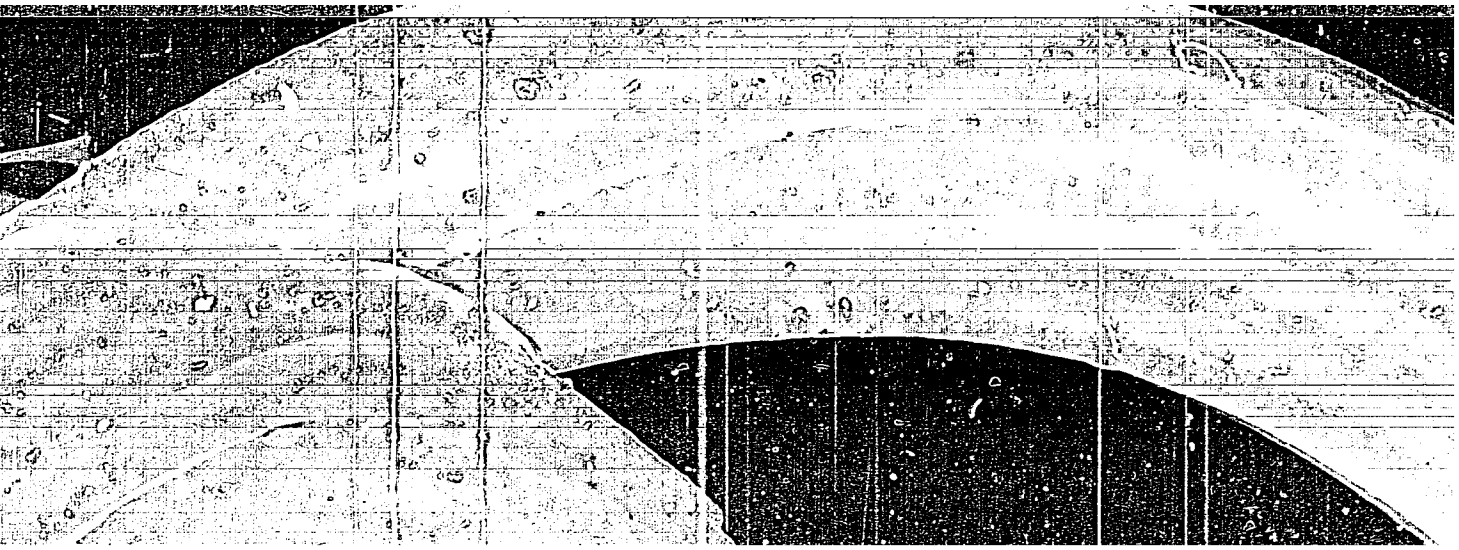




APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860610001-8"



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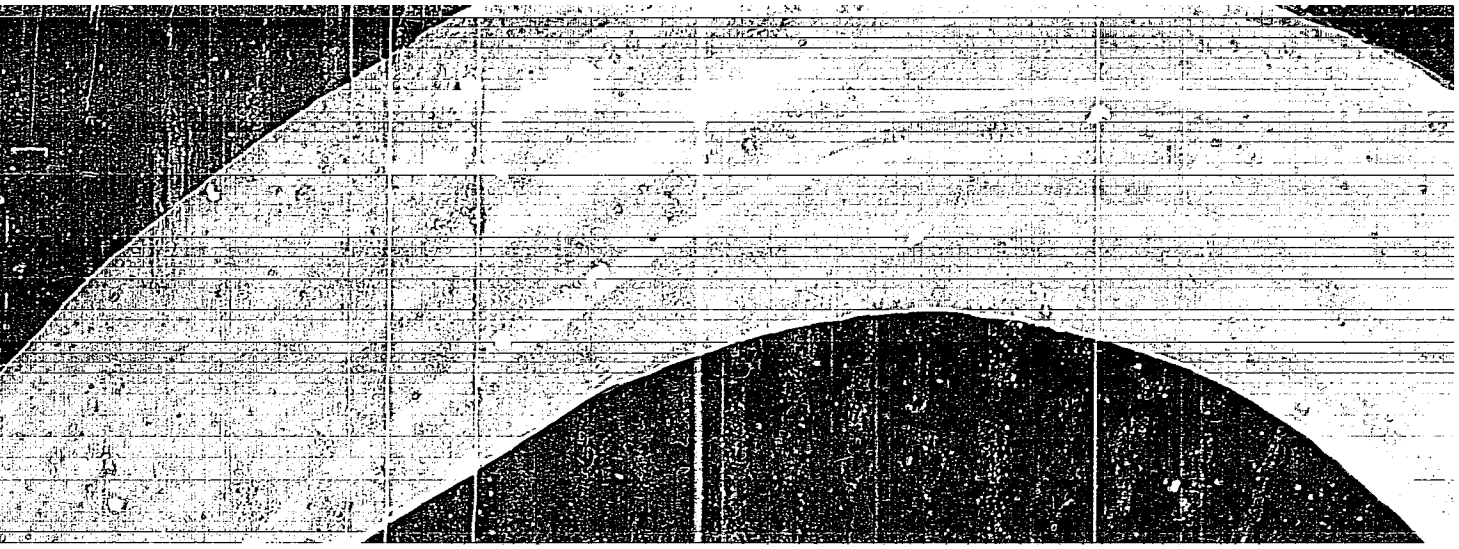

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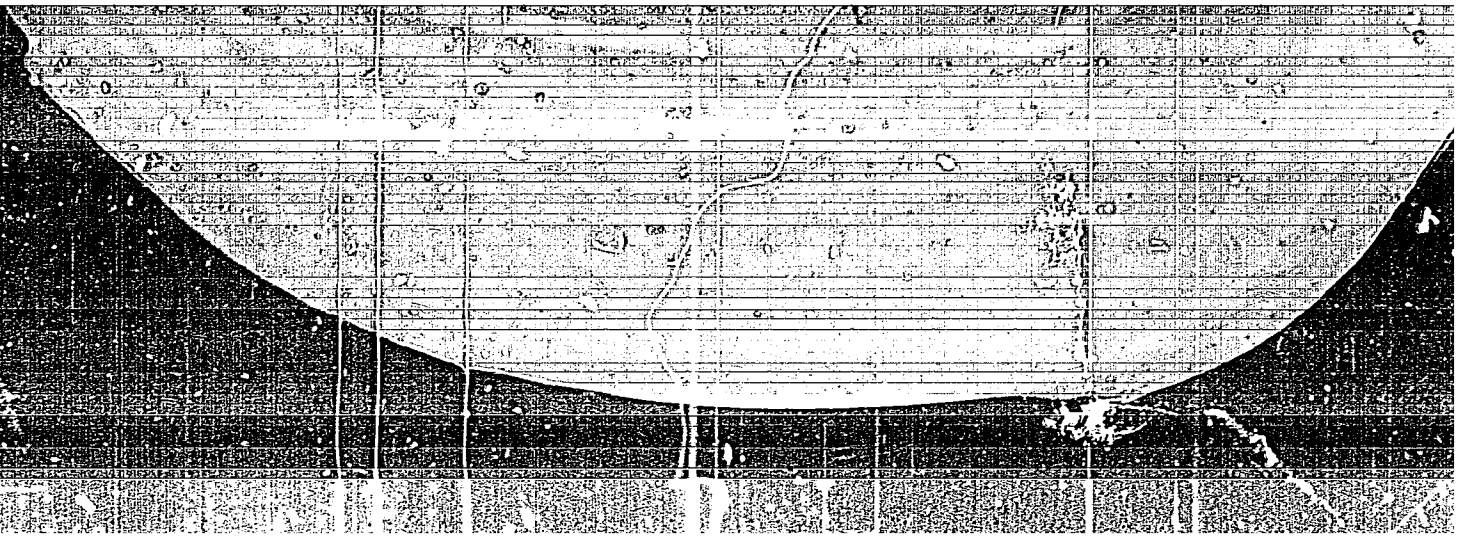

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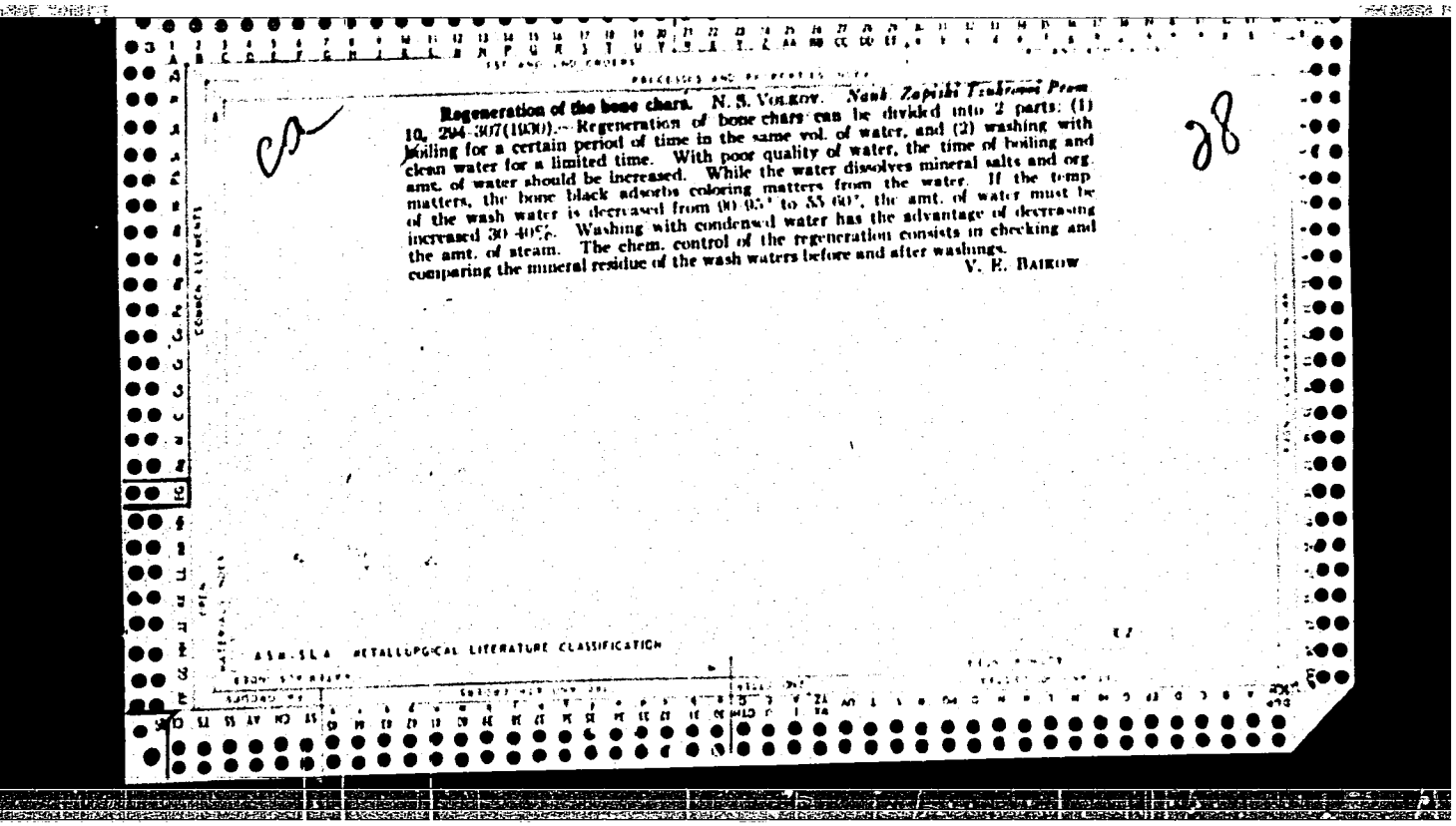


Regeneration of the bone chars. N. S. Vorgov. *Nauk. Zapiski Tsukrovoi Prom.* 10, 294-307(1930).—Regeneration of bone chars can be divided into 2 parts: (1) boiling for a certain period of time in the same vol. of water, and (2) washing with clean water for a limited time. With poor quality of water, the time of boiling and amt. of water should be increased. While the water dissolves mineral salts and org. matters, the bone black adsorbs coloring matters from the water. If the temp. of the wash water is decreased from 80-85° to 55-60°, the amt. of water must be increased 30-40%. Washing with condensed water has the advantage of decreasing the amt. of steam. The chem. control of the regeneration consists in checking and comparing the mineral residue of the wash waters before and after washings.

V. E. Baikow

ZAKLAVSKIY, Yu.Z., kand. tekhn. nauk; [illegible], A.A., inzh.; [illegible], Yu.L., inzh.

Investigating the stress-strain state surrounding pillar workings located at great depths. Gor. zhur. no.3:31-33 '64. (MIRA 17:3)

VOLKOV, N.S., inzh.

Reinforcing ash-concrete slabs for roofs and floors. Trudy Zap.-Sib.fil.ASiA no.3:111-119 '60. (MIRA 15:2)
(Concrete slabs)
(Reinforced concrete)

SPITSYN, Yu.G., kand.tekhn.nauk; NOVIKOV, A.I., inzh.; VOLKOV, N.S., inzh.; REZNIK, Yu.R., inzh.

Speed of the propagation of ultrasonic vibrations in rocks under monaxial compression. Sbor.DonUGI no.26:96-106 '62. (MIRA 16:6)

(Ultrasonic waves—Speed) (Rocks—Testing)

VOLKOV, N.T., vet.vrach

Comments on instructions about measures to be taken against fowl plague. Veterinariia 36 no.2:62 '59. (MIRA 12:2)

1. Belorusskiy sovnarkhoz.
(Poultry--Diseases and pests)

ZOLOTAREV, V.I.; PEKSHEV, Yu.A.; AVSENEV, Yu.M.; KAPRANOV, I.A.; KISVYANTSEV, L.A.; SHVETSOV, N.I.; TELEGIN, Ya.I.; POTAPOV, V.I.; KISVYANTSEV, L.A.; ZYKOV, A.A.; NETRUSOV, A.A.; SKNIN, V.P.; MAKSIMOVA, A.P.; NIKOLAYENKO, Zh.I.; VOLKOV, N.V.; KALASHNIKOV, A.A.; PLAKSIN, S.V.; POPOV, N.N.; KARSHINOV, L.N.; YAKIMOVA, T.A.; BASHKANIKHIN, I.K.; KITKOVICH, A.Ya.; SHALASHOV, V.P.; VORONKOV, F.N.; VEKSHIN, G.K.; CHISTYAKOV, M.A.; IVANOV, N.I., red.; SLADKOVSKIY, M.I., red.; LEPNIKOVA, Ye., red.; MOSKVINA, R., tekhn.red.

[Economic development of the people's democracies] Razvitie ekonomiki stran narodnoi demokratii; obzor za 1957 g. Pod red. N.I. Ivanova i dr. Moskva, Izd-vo sots.-ekon.lit-ry, 1958. 61[illegible] p. (MIRA 12:7)

1. Moscow. Nauchno-issledovatel'skiy kon"yunkturnyy institut. (Economic conditions)

VOLKOV, N.V.

ZOLOTAREV, V.I.; AVSENEV, Yu.M.; KAPRANOV, I.A.; KISVYANTSEV, L.A.; PEKSHEV, Yu.A.; SHVETSOV, N.I.; TELEGIN, Ya.I.; POTAPOV, V.I.; KISVYANTSEV, L.A.; ZYKOV, A.A.; METHUSOV, A.A.; SENIN, V.P.; MAKSIMOVA, A.P.; NIKOLAYENKO, Zh.I.; VOLKOV, N.V.; KALASHNIKOV, A.A.; PLAKSIN, S.V.; POPOV, N.N.; KARSHINOV, L.N.; YAKIMOVA, T.A.; BASHKANIKHIN, I.K.; KETKOVICH, A.Ya.; SHALASHOV, V.P.; VORONKOV, F.N.; VEKSHIN, G.K.; CHISTYAKOV, M.A.; IVANOV, N.I., red.; SLADKOVSKIY, M.I., red.; LEPNIKOVA, Ye., red.; MOSKVINA, R., tekhn.red.

[Development of the economy of the people's democracies; a survey for 1957] Razvitie ekonomiki stran narodnoi demokratii; obzor za 1957 g. Pod red.N.I.Ivanova i dr. Moskva, Izd-vo sotsial'no-ekon. lit-ry, 1958. 610 p. (MIRA 12:2)

1. Moscow. Nauchno-issledovat. kon"yunkturnyy institut.
(People's democracies) (Economic conditions)

PIROGOV, A.A.; RAKINA, V.P.; KRASS, Ya.R.; VOLKOV, N.V.; BELICHENKO, G.I.; GALATOV, N.S.; NESTEROVA, A.L.; KORKOSHKO, N.M.; YEL'TSOV, V.V.

Dolomite magnesite blocks for lining oxygen-blown converters. Ogneupory 30 no.9:4-5 '65. (MIRA 18:9)

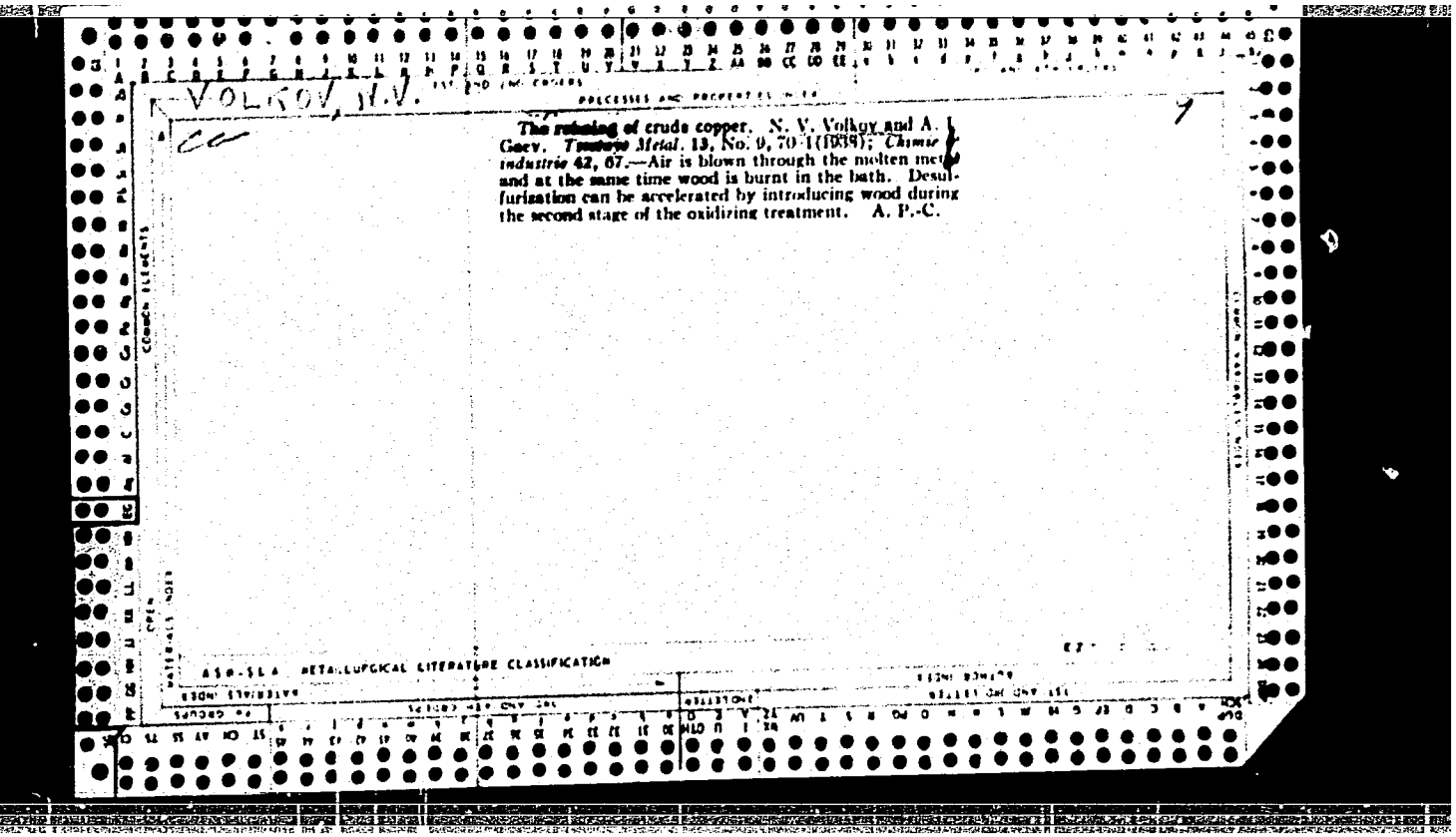
1. Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov (for Pirogov, Rakina, Krass, Volkov, Belichenko).
2. Krivorozhskiy metallurgicheskiy zavod (for Galatov, Nesterova, Korkoshko, Yel'tsov).

NIKIFOROV, I.A.; NIKOLAYENKO, Zh.I.; VOLKOV, N.V.; SHVETSOV, N.I.; PLAKSIN, S.V.; POPOV, N.N.; PEKSHEV, Yu.A.; KARSHINOV, L.N.; YAKIMOVA, T.A.; SHALASHOV, V.P.; VASYANIN, Yu.L.; KRASNOV, L.V.; PUSENKOV, N.N.;VASIL'YEVA, G.N.; TSAGURIYA, G.M., tekhn. red.

[Economic development of the people's democracies of Europe and Asia; statistical collection] Razvitie ekonomiki stran narodnoi demokratii Evropy i Azii; statisticheskii sbornik. Moskva, Vneshtorgizdat, 1961. 470 p. (MIRA 15:5)
(Communist countries--Statistics)

VOLKOV, M.V.; KAMPMAN, M.I.; SVIRIN, P.M.

Effect of storage conditions on the quality of willow bark.
Kozh.-obuv. prom. 2 no. 11:30-31 N '60. (MIRA 13:12)
(Tanning materials)



K-VOLKOV, N.V.

CA

PROCESSES AND PROPERTIES

The refining of crude copper. N. V. Volkov and A. I. Gocv. *Tsvetnye Metal.* **13**, No. 9, 70–1 (1938); *Chimie & industrie* **42**, 67.—Air is blown through the molten metal and at the same time wood is burnt in the bath. Desulfurization can be accelerated by introducing wood during the second stage of the oxidizing treatment. A. P.-C.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

89821

S/193/60/000/005/010/012
A004/A001

6.2000

AUTHOR: Volkov, N.V.

TITLE: The Hungarian Instrument-Making Industry

PERIODICAL: Byulleten' tekhniko-ekonomicheskoy informatsii, 1960, No. 5, pp. 75 - 78

TEXT: The author presents a survey on the development of the Hungarian instrument-making industry and points out that by the end of 1959 18,000 workers, i.e. 8% of the total number of workers occupied in the Hungarian mechanical engineering industry, were employed in instrument-making. The gross product per worker has risen from 1949 to 1959 by 2.3 times, while at present the Hungarian instrument-making industry is manufacturing 3,700 instrument items, 90% of which are mechanical, electrical and electronic measuring devices. One of the most important items are electric meters, produced by one of the biggest Hungarian instrument-making plants - the "Ganz" Plant. The following production figures present an idea of the increase in the electric-meter production (in thousands); 1953 - 293; 1957 - 339; 1958 - 476; 1959 - 490, (the last figure being an estimate based on the data on the data of 10 months). The production of electronic devices and instruments is becoming more and more important. At the Electronic

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The Hungarian Instrument-Making Industry

Measuring Device Plant (EMG) some 100 different devices are produced, most of them for communication-purposes. The author mentions and partly gives a description of the following devices of this category: The "Orion-EMG 1176" signal generator which makes it possible to obtain modulated signals within a wide frequency range, from 1,800 to 4,000 Mcps, maximum output power 1 mw; the "Orion-EMG 1382/B" wattmeter for power measurements in the range of 0.03-5 mw with an accuracy of ± 10%, a frequency band of 1,800-4,000 Mcps at a standing wave coefficient of 2; the "Orion-FMV 1691" measuring receiver devised for the measurements of field voltage or voltage of amplitude-modulated VHF signals. This receiver can be used in radio-relay lines with pulse modulation or as radar receiver. It has a frequency range of 2,700 - 3,000 Mcps, the maximum noise coefficient is 17 decibels, sensitivity to VHF signals not less than 6 μv at an input resistance of 50 ohm, sensitivity to signals of intermediate frequencies (2 Mcps) not less than 3 μv, the pass band for intermediate frequencies is 0.3 Mcps; the "Orion-EMG 1551" double-trace laboratory oscilloscope devised for the simultaneous observation of two phenomena. The pass bands of the two amplifiers of the device are from 20 cps to 5 Mcps. The device ensures a thousandfold amplification; the 2738/3-3 double-beam ferrotester devised for the rapid and accurate measurement of magnetization characteristics,

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The Hungarian Instrument-Making Industry

magnetic saturation, residual magnetism, coercive force, magnetic permeability, etc. without changing the structure of the specimens during the tests. The tests are carried out at frequencies from 20 - 1,000 cps, the input is about 12 va; the "Orion-KTS 2891/S" device devised to determine the magnitude of moments in statically indeterminate structures; the "Gigromatik" type 2829 hygrometer with interchangeable measuring cylinders intended to measure the moisture content of grain and other granular or powdery materials. The operation of the hygrometer is based on the variations of the dielectric properties of hygroscopic materials. A relative humidity in the range of 0-30% can be measured with a precision of $\pm$ 0.5%. For nuclear physics the "Orion-EMG 1863" portable ion-chamber radiation meter has been developed for the measurement of radioactive radiation of 30, 100, and 300 milliroentgen/hour intensity with an accuracy of not less than $\pm$ 15% of the upper scale limit. The "Orion-EMG 1873" laboratory counter is intended for investigations connected with intensive radioactive radiation. In combination with scintillation and proportional counters the device can be used for power measurements. The medium counting rate is 25,000 pulses/second. The resolving power is 5 μ sec, the input sensitivity can be varied in the range of 1 - 500 mv. The author points out that in 1959 nearly 80% of all instruments produced in Hungary were exported. One of the biggest importers of Hungarian instruments is

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A004/A001

The Hungarian Instrument-Making Industry

the Soviet Union, having imported in 1958 instruments to the value of 12.4 million rubles, which is 7% of the total instrument importation of the Soviet Union. During the second Five-Year Plan (1961-1965) the Hungarian instrument-making industry will greatly increase its productive capacity and will, according to the plan, increase its output of electronic devices by 3.4 times. There are 3 figures, 1 Soviet and 9 non-Soviet references.

Card 4/4

VOLKOV, N.V.; KARPMAN, M.I.

Extraction of tannin from willow bark with sodium sulfite.
Kozh.-obuv.prom.3 no.3:32-33 Mr '61. (MIRA 14:6)
(Tannins) (Sodium sulfite)

VOLKOV, N.V.

Electric industries in Hungary. Biul.tekh.-ekon.inform. no.2:77-80 '60. (MIRA 13:6)
(Hungary—Electric engineering)

137-58-6-11963

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 111 (USSR)

AUTHOR: Volkov, N.V.

TITLE: Fire Refining of "Overblown" Blister Copper (Ognevoye rafinirovaniye "peredutoy" chernovoy medi)

PERIODICAL: Byul. tsvetn. metallurgii, 1957, Nr 9, pp 19-20

ABSTRACT: The profitability of "overblowing" Cu in the converter lies in the fact that the duration of Cu blow therein is 3-4 min, while in an anode furnace it would be 2-2.5 hrs. Experiments show that when the "overblown" Cu contains ∿3.5% Cu_2O, it is easy to cast smooth, even pigs therefrom which are handy for charging into an anode furnace. The smelting of such overblown Cu in an anode furnace requires 17-20% less time than does that of ordinary blister Cu. Despite the clear advantage of blowing Cu in the converter to ∿3.5% Cu_2O contents, copper smelters are continuing to produce ordinary blister Cu.

1. Copper ores--Processing 2. Copper--Production 3. Furnaces--Effectiveness

A.P.

Card 1/1

ZOLOTAREV, V.I.; PEKSHEV, Yu.A.; LENSKIY, B.V.; AVSENEV, Yu.M.; KISVYANTSEV, L.A.; SHVETSOV, N.I.; TELEGIN, Ya.I.; ZYKOV, A.A.; SENIN, V.P.; NETRUSOV, A.A.; GAVRILOV, V.V.; NIKOLAYENKO, Zh.I.; VOLKOV, N.V.; KALASHNIKOV, A.A.; PLAKSIN, S.V.; POPOV, N.N.; KARSHINOV, L.N.; YAKIMOVA, T.A.; SHALASHOV, V.P.; KOSONOGOV, L.A.; PUSENKOV, N.N.; LEPHIKOVA, Ye., red.; MOSKVINA, R., tekhn.red.

[Economic development in the people's democracies; survey for 1958] Razvitie ekonomiki stran narodnoi demokratii; obzor za 1958 g. Pod red.M.I.Sladkovskogo i dr. Moskva, Izd-vo sotsial'no-ekon.lit-ry, 1959. 358 p. (MIRA 13:7)

1. Moscow. Nauchno-issledovatel'skiy kon"yunkturnyy institut.
(Communist countries--Economic conditions)

PEKSHEV,Yu.A.; LENSKIY,B.V.;AVSENOV,Yu.M.;MILONOV,V.S.;KISVYANTSEV,L.A.;TELEGIN, Ya.I.; POTAPOV, V.I.; NETRUSOV, A.A.; ZYKOV, A.A.; KUDIN, B.M.;MAKSIMOVA, A.P.; NIKOLAYENKO, Zh.I.; VOLKOV, N.V.; SHVETSOV, N.I.; PLAKSIN, S.V.; POPOV, N.N.; KARSHINOV, L.N.; YAKIMOVA, T.A; SHALASHOV, V.P.; VISYANIN, Yu.L.; KRASNOV, L.V.; PUSENKOV, N.N.; IVANOV, N.I., red.; ZOLOTAREV, V.I., red.; SLADKOVSKIY, M.I., red.; LEPNIKOVA, Ye., red.; KOROLEVA, A., mladshiy red.; NOGINA, N., tekhn. red.

[Economic development of the people's democracies; survey for 1959] Razvitie ekonomiki stran narodnoi demokratii; obzor za 1959 god. Pod red. N.I.Ivanova i dr. Moskva, Izd-vo sotsial'no-ekon. lit-ry, 1960. 305 p. (MIRA 14:6)

1. Moscow. Nauchno-issledovatel'skiy kon"yukturnyy institut.
(Europe, Eastern—Economic conditions)

VOLKOV, N.V.

Instrument industry in Hungary. Biul.tekh.-ekon.inform. no.5:75-78 '60.
(MIRA 14:3)
(Hungary—Instrument industry)

VOLKOV, M. V.

28424

Na fabrikakh otlichnogo kachyestva. (Yaroal. Zordmaya fabrika.) Tyextil. Pron-stv. 1949 No 9, S. 42-44

SO: LETOPIS No. 34

BOLOTAREV, V.I.; PEKSHEV, Yu.A.; LENSKIY, B.V.; AVSHNEV, Yu.M.; KISVYANTSEV, L.A.; SHVETSOV, N.I.; TELEGIN, Ya.I.; ZYKOV, A.A.; SHNIN, V.P.; PETRUSOV, A.A.; GAVRILOV, V.V.; NIKOLAYENKO, Zh.I.; VOLKOV, N.V.; KALASHNIKOV, A.A.; PLAKSIN, S.V.; POPOV, N.N.; KARSHINOV, L.N.; YAKIMOVA, T.A.; SHALASHOV, V.P.; KOSONOGOV, L.A.; PUSHKOV, N.N.; SLADKOVSKIY, M.I., red.; IVANOV, N.I., red.; LEPNIKOVA, Ye., red.; MOSKVINA, R., tekhn.red.

[Economic development in the people's democracies; review for 1958] Razvitie ekonomiki stran narodnoi demokratii; obzor za 1958 g. Pod red. M.I.Sladkovskogo i dr. Moskva, Izd-vo sotsial'-no-ekon.lit-ry, 1959. 358 p. (MIRA 13:7)

1. Moscow. Nauchno-issledovatel'skiy kon"yunkturnyy institut.
(Communist countries--Economic conditions)

FRENKEL', P.Ya.; KRASUKHIN, M.N.; VOLKOV, N.V.; KARPMAN, M.I.; MAYOROVA, Ye.I.

Using the ion exchange method for refining tanning bark extracts. Kozh.-obuv.prom. 2 no.7:28-30 Jl '60. (MIRA 13:8)
(Tanning materials) (Ion exchange)

VOLKOV, N.V.

Automobile industry in Hungary. Biul.tekh.-ekon.inform. no.10:72-76 '60. (MIRA 13:10)

(Hungary--Automobile industry)

PIROGOV, A.A.; RAKINA, V.P.; VOLKOV, N.V.

Unburned dolomite refractories with a high resistance to hydration. Ogneupory 28 no.6:269-275 '63. (MIRA 16:6)

1. Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov.
(Firebrick—Testing) (Hydration)

VOLKOV, N.Ya.

The furniture industry is fulfilling its seven-year plan assignment.
Der.prom. 10 no.9:3-5 S '61. (MIRA 14:10)

1. Gosplan SSSR.
(Furniture industry)

L 24322-66 EWT(1)/EWT(m)/EPF(n)-2/EWG(m)/T/EWP(t) IJP(c) JD/JG/AT

ACC NR: AT6006755 SOURCE CODE: UR/3158/65/000/016/0001/0010

AUTHOR: Volkov, N. V.; Gus'kov, Yu. K.; Zyukov, V. I.; Pashchenko, V. P.

ORG: Physics and Power Institute, State Committee on the Use of Atomic Energy, SSSR (Fiziko-energeticheskiy institut, Gosudarstvennyy komitet po ispol'zovaniyu atomnoy energii SSSR)

TITLE: Effect of size of interelectrode gap on the operation of cesium thermionic converter

SOURCE: Obninsk. Fiziko-energeticheskiy institut. Doklady, no. 16, 1965. Vliyaniye velichiny mezhelektrodnogo zazora na rabotu tseziyevogo termopreobrazovatelya, 1-10

TOPIC TAGS: cesium electron tube, cesium plasma, thermoelectric convertor, volt ampere characteristic, gas kinetcs, pressure effect, impact ionization

ABSTRACT: The authors have measured the dependence of the short-circuit current, the discharge ignition voltage, the output voltage, and the thermionic-converter power, when operating in the arc discharge mode at a constant cesium pressure. Earlier investigations of the effect of the interelectrode gap were made usually at optimal cesium pressure and optimum anode temperature, and did not yield sufficient data to explain the role and character of the physical processes responsible for the optimal conditions. The measurements were made with a tube having a movable anode. The molybdenum cathode was heated with an electron gun, and the gap could be

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ACC NR: AT6006755

varied from 0.2 to 8 mm. The anode was stainless steel and its temperature was controlled by air cooling. The volt-ampere characteristics were taken both with an oscilloscope and with a pointer-type meter. The experimental plots of the saturation curve against the gap length (L) and of the output power were compared with calculations based on the kinetic theory. The tests show that the dependence of the short-circuit current on the gap and on the pressure is characterized by the presence of a maximum, confirming earlier results. An increase in the temperature of the cathode improves the ignition and combustion conditions for the arc, for both larger and smaller gaps. The output power of the converter has a stronger dependence on the gap than the short-circuit current, but in the region of $L/\lambda = 5$--25 (λ = electron mean free path) the power likewise changes little. A distinction is made between two types of operation -- without volume ionization ($\lambda/L \approx 1$), and the arc mode (L/λ much larger). The theoretical and experimental results are compared for both modes. Orig. art. has: 7 figures and 4 formulas.

SUB CODE: 10,20/ 1 ORIG REF: 009/ OTH REF: 007

SUBM DATE: none

Card 2/2

L 45167-66 EWT(l)/EWT(m)/EEC(k)-2/T/EWP(t)/ETI IJP(c) RTW/JD/TT/WW/JG/AT
ACC NR: AP6028622 SOURCE CODE: UR/0057/66/036/008/1475/1480

98
B

AUTHOR: Volkov,N.V.; Gus'kov,Yu.K.; Zyukov,V.I.; Pashchenko,V.P.

ORG: none

TITLE: Influence of the length of the interelectrode gap on the operation of a cesium thermoelectric converter

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 8, 1966, 1475-1480

TOPIC TAGS: thermionic energy conversion, cesium, electric arc, cesium plasma

ABSTRACT: The authors have investigated the effect of the interelectrode gap length on the behavior of cesium vapor discharges between an electron beam heated molybdenum cathode and an air cooled stainless steel anode. Both electrodes were 12 mm in diameter, and the gap between them was varied from 0.2 to 8 mm. The cesium vapor pressure was varied at least over the range from 0.2 to 2.0 mm Hg. Meters and an oscilloscope were employed to record the discharge currents and voltages. The results are interpreted in terms of the theory of S.A.Mayev (Dissertation, FTI AN SSSR, L., 1962) and S.A.Mayev and I.P.Stakhanov (Izv. AN SSSR, ser. fiz., No. 9, 1964). The shape of the current-voltage characteristic practically did not change with change of gap length and in the undercompensated regime the pressure for maximum power was virtually the same as that for maximum current. Considerable increase of the power output in the undercompensated regime can

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ACC NR: AP6028622

be obtained by increasing the pressure and decreasing the gap length so as to keep the latter approximately equal to the electron mean free path. In the arc regime the short circuit current was maximum for a certain gap length and decreased almost linearly with increase of the gap beyond the optimum value until the arc was quenched. Considerable hysteresis in the quenching and ignition gap lengths was observed. In the arc regime the power was maximum for a gap length between 5 and 25 times the electron mean free path and decreased with decrease of the gap below this value. When increasing the cesium pressure in order to increase the power output in the arc regime, one should decrease the gap length so as to keep the ratio of the gap length to the electron mean free path approximately constant. This is in agreement with the findings of C.C.Weeks, R.C.Dahleen, and I.E.Gingrich (Adv.Energy Conv., 2, 315, 1962) and S.Kitrilakis and G.N.Hatsopoulos (Adv.Energy Conv.,2, 583, 1962). Orig. art. has: 5 formulas and 7 figures. [15]

SUB CODE: 20 SUBM DATE: 21Jun65 ORIG. REF: 009 OTH REF: 007/
ATD PRESS: 5081

Card 2/2

MAKSAKOV, M.F.; VOLKOV, N.Ya.

For a successful completion of the third year schedule of the seven-year plan. Der.prom. 10 no.1:1-3 Ja '61. (MIRA 14:2)

1. Gosplan SSSR. (Woodworking industries)

PETROV, Boris Sergeyevich, prof., doktor ekon. nauk; VOLKOV, N.Ya., retsenzent; SITKHINA, D.Ye., red.; POLUNICHEV, I.A., red. izd-va; PARAKHINA, N.L., tekhn. red.

[Production organization and planning in the woodworking industries] Organizatsiia i planirovanie proizvodstva na derevoobrabatyvaiushchikh predpriiatiiakh. Moskva, Goslesbumizdat, 1960. 312 p. (MIRA 14:6)

1. Starshiy inzhener sektora derevoobrabotki lesnogo otdela Gosplana SSSR (for Volkov)
(Woodworking industries—Management)

VOLKOV, N.Ya.

High expansion rates for the furniture industry. Der.prom. 9 no.3:1-3 Mr '60. (MIRA 13:6)

1. Gosplan SSSR. (Furniture industry)

VOLKOV, N.Z.; BELOUSOV, V.P.

Using a mining method in laying underground piping. Prom. stroi. 40 no.7:36-37 '62. (MIRA 15:7)

1. Trest Metallurgstroy, Tula.
(Tunneling) (Metallurgical plants—Equipment and supplies)

VOLKOV, N.Z.

VOLKOV, N.Z.; SMERTYUK, V.G.; POPOV, V.S.

Spongolite is a natural filler for lightweight concrete. Shakht. stroi. no.8:30 Ag '57. (MLRA 10:9)
(Spongolite) (Concrete)

VOLKOV, O.

Fire hazards of the electronic calculating machines. Pozh.delo 9 no.8:12-14 Ag '63. (MIRA 16:9)
(Electronic computers--Design and construction) (Fire prevention)

ACCESSION NR: AP4011360 S/0118/64/000/001/0034/0037

AUTHOR: Volkov, O. I. (Engineer)

TITLE: Problems of improving economic efficiency of automatic production lines

SOURCE: Mekhanizatsiya i avtomatizatsiya proizvodstva, no. 1, 1964, 34-37

TOPIC TAGS: automatic production line, automatic line economics, automobile factory, Likhachev automobile factory, Gor'kiy automobile factory, 1-GPZ ball bearing factory

ABSTRACT: The adoption of automatic production lines in the Likhachev and Gor'kiy automobile factories, the 1-GPZ ball-bearing factory and elsewhere has proven "economically inefficient." The cost of mounting five automatic lines, introduced at the Likhachev factory in 1961, was about 20% of the entire equipment cost. It is expected, however, that the saving on labor will pay the cost of 11 new automatic lines being mounted in the same plant for processing the components of the ZIL-130 car; the number of operators is expected to be reduced from 443 to 65. The above data is detailed in a table. Thanks to better automatic, rather than manual, utilization of equipment, such as stamping

Card 1/2

ACCESSION NR: AP4011360

presses, as well as to other causes, labor productivity is expected to rise by 6-10 times, while the necessary additional investment increases by 30-40%. MPL-4, MRL-8, and MRL-9 lines, on the other hand, required an additional investment of 119% and yielded only an 18% gain in labor productivity; no automatic turning-lathe-type line is considered economical. It is concluded that the best way to offset the increased investment and maintenance cost of automatic lines is to standardize the assemblies and units that constitute the line; then, large-batch or mass production of such units would reduce their cost. Several other instances are cited where automation is not economically justifiable because of its higher cost compared with the wages of the workers it would replace. Orig. art. has; 2 tables.

ASSOCIATION: none

SUBMITTED: 00	DATE ACQ: 14Feb64	ENCL: 00
SUB CODE: IE	NO REF SOV: 000	OTHER: 000

Card 2/2

VOLKOV, O.I., inzh.

Increasing economic efficiency of automatic production lines.
Mekh. i avtom. proizv. 18 no.1:34-37 Ja '64.
(MIRA 17:8)

VOLKOV, Oleg Mikhaylovich; PRIKHOD'KO, Leonid Leonidovich; MAKAROV, V.M., red.; KOMONOV, A.S., red.izd-va; LELYUKHIN, A.A., tekhn. red.

[Fire prevention measures in the operation of electronic calculating machines] Pozharnaia profilaktika pri ekspluatatsii elektronnykh vychislitel'nykh mashin. Moskva, Izd-vo M-vo kommun.khoz. RSFSR, 1962. 50 p. (MIRA 16:4)
(Electronic computers) (Fire prevention)

MYAKOTKIN, Yu.I.; EL'KIN, I.A.; VOLKOV, O.N., inzh., retsenzent; ORLOV, G.N., inzh., retsenzent; PETROV, G.A., inzh., retsenzent; BAULIN, V.A., red.; EL'KINA, E.M., tekhn. red.

[New equipment for public food-serving establishments] Novoe oborudovanie predpriiatii obshchestvennogo pitaniia. Moskva, Gos. izd-vo torg. lit-ry, 1961. 198 p. (MIRA 15:2)
(Restaurants, lunchrooms, etc.—Equipment and supplies)

MALININ, Yu.S.; RYAZIN, V.P.; VOLKOV, O.S.

Quantitative determination of the mineralogical composition of clinker using an X-ray diffractometer. TSement 28 no.3:14-16 My-Je '62. (MIRA 15:7)

1. Gosudarstvennyy vsesoyuznyy nauchno-issledovatel'skiy institut tsementnoy promyshlennosti.
(Cement clinkers) (X rays--Diffraction)

KHEYKER, D.M.; VOLKOV, O.S.

Increasing sensitivity and precision of quantitative phase analysis by the URS-501 X-ray diffractometer. Trudy NIIAsbesttsementa no.8:66-80 '58. (MIRA 16:8)

S/C /62/000/024/073/073
B166/B186

AUTHORS: Malinin, Yu. S., Ryazin, V. P., Volkov, O. S.

TITLE: Quantitative determination of the mineralogical composition of clinker by X-ray diffractometry

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 24, 1962, 593, abstract 24K434 (Tsement, no. 3, 1962, 14 - 16)

TEXT: Аппарат УРС-50 И (URS-50I) X-ray diffractometer with a focusing crystal monochromator was used for quantitative phase analysis of the clinkers of a number of cement plants. CaF_2 was taken as the internal standard. Calibration curves were plotted from synthetic clinker minerals ground to pass a 0.063 mm sieve. These curves were used to study the clinkers from a number of cement plants and also several specimens of fused cement. The data obtained on C_3S and C_3A content in general agreed satisfactorily with the results of the petrographic determination of these minerals. The content of alumoferrites and C_3A has to exceed 5% before they can be determined, and C_2S can only be determined if it is present in a quantity >15%.

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S/081/62/000/024/073/073
B166/B186

Quantitative determination ...

[Abstracter's note: Complete translation.]

Card 2/2

VOLKOV, O.S.; GRACHEVA, O.I.; KHEYKER, D.M.

Studying the interaction of clinker minerals with silica by a method of X-ray quantitative phase analysis. Trudy NIIAsbestcementa no.11:68-83 '61. (MIRA 16:9)

VOLKOV, O.S.; ZEVIN, L.S.; KEYKER, D.M.

High-temperature attachment to the URS-501 diffractometer for the study of the dehydration of asbestos cement and its component minerals. Trudy NIIAsbesttsementa no.11:84-90 '61. (MIRA 16:9)

S/032/63/029/002/021/028
B101/B186

AUTHORS: Kheyker, D. M., and Volkov, O. S.

TITLE: High-temperature attachment to the X-ray diffractometer

PERIODICAL: Zavodskaya laboratoriya, v. 29, no. 2, 1963, 225 - 227

TEXT: An attachment (Fig. 1) to the X-ray diffractometer is described which enables the error in measuring the diffraction reflexes to be reduced by vibrating the attachment at 25 cycles/min through an angle of 4°. This makes it possible to heat the specimen up to 1400°C and to carry out measurements in air, in vacuum or in inert gas. At 800°C the temperature difference within the specimen did not exceed 10°C. The circuit makes it possible to program the temperature rise. X-ray patterns of $3CaO \cdot SiO_2 \cdot 2H_2O$ were taken between 25 and 1425°C and the phase transitions became visible owing to the liberation of H_2O. There are 3 figures.

ASSOCIATION: Nauchno-issledovatel'skiy institut "NIIAsbesttsement" (Scientific Research Institute "NIIAsbesttsement")

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S/032/63/029/002/021/028
B101/B186

High-temperature attachment to...

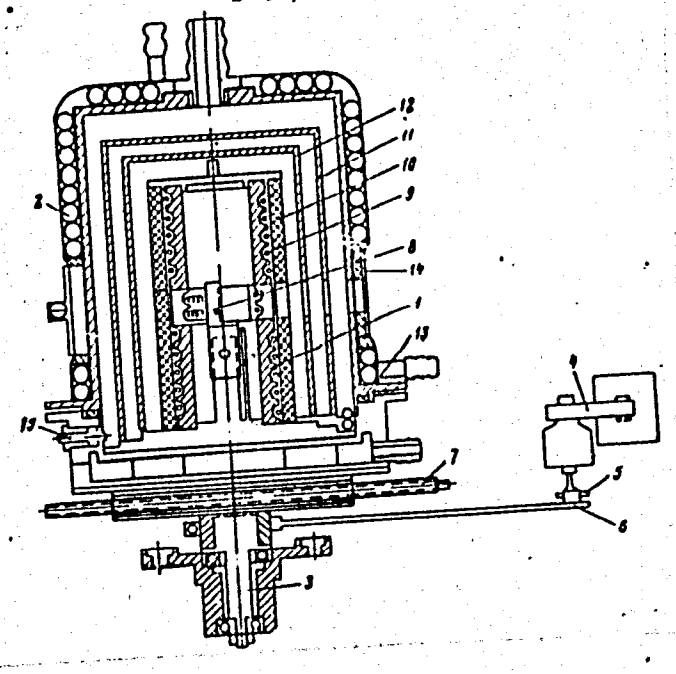

Fig. 1. High-temperature attachment to the X-ray diffractometer.

Legend: (1) tube furnace; (2) water-cooled jacket; (3) axis; (4) electric motor; (5) cardioid; (6) lever; (7) adjusting screw; (8) specimen holder of platinum; (9) Pt-Rh heater, 800 w; (10) ceramic shield; (11) and (12) nickel shields; (13) rubber sealing; (14) seal ing ring with beryllium. windows; (15) inlet for heater and thermoccuples.

Card 2/2

VOLKOV, O.S., inzh.; SOKOLOV, P.N., prof.

Hydration and solidification of individual clinker minerals and the effect of an addition of asbestos on these processes. Trudy NIIAsbesttsementa no.14:3-23 '62. (MIRA 16:9)

KHEYKER, D.M.; VOLKOV, O.S.; ZEVIN, L.S.; LUBE, E.L.

Diffractometric equipment for phase analysis. Trudy NIIAsbesttsementa no.16:25-42 '63. (MIRA 16:8)
(X-ray diffraction examination)

VOLKOV, O.S.; KHEYKER, D.M.

Quantitative determination of clinker minerals by means of diffractometry. Trudy NIIAsbesttsementa no.16:43-55 ;'63. (MIRA 16:8)

(Cement clinkers) (Diffraction)

SOV/70-3-1-7/26

AUTHORS: Umanskiy, M.M., Kheyker, D.M. and Volkov, O.S.

TITLE: Procedure for the Use of the URS-50I Apparatus as a Monocrystal Diffractometer (Priyemy ispol'zovaniya apparata URS-50I kak diffraktometra dlya monokristallov)

PERIODICAL: Kristallografiya, 1958, Vol 3, Nr 1, pp 43 - 48 (USSR)

ABSTRACT: The URS-50I apparatus was designed for X-ray structural analysis with ionisation-counter recording and was described by Ioffe in Ref 1. The present paper describes a method for converting this apparatus into a monocrystal diffractometer. A description is given of an attachment which can be used to determine the relative orientation of the crystal and the counter. A procedure is given for the adjustment of the crystal, determination of the parameters of the elementary cell and measurement of the integrated reflection intensity. The integrated reflection intensity is measured by a method analogous to that described by Cochran in Ref 4 and the counter resolving time is measured by an oscillographic method described by Klug et al in Ref 3. Geiger counters are used as detectors but it is intended to use scintillation and proportional counters.

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SOV/70-3-1-7/26

Procedure for the Use of the URS-50I Apparatus as a Monocrystal Diffractometer

There are 5 figures, and 5 references, 2 of which are Soviet and 3 English.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova (Moscow State University imeni M.V. Lomonosov)
VNIIASBESTTsEMENT

SUBMITTED: March 23, 1957

Card 2/2

KRAVCHENKO, I.V., kand.tekhn.nauk, DMITRIVYEV, A.M., inzh., VOLKOV, O.S., inzh., KHEYKER, D.M., kand.tekhn.nauk

Hydration products of clinker minerals in very deep oil wells. Trudy NII:Sement no.13:35-50 '60. (MIRA 13:11)
(Cement clinkers--Testing) (Oil well drilling)

AUTHORS: Volkov, O. S., Kheyker, D. M.

S/032/60/036/03/045/064
B010/B117

TITLE: Attachment to the Diffractometer of the Type URS-50-I Used for Phase Analysis

PERIODICAL: Zavodskaya laboratoriya, 1960, Vol 36, Nr 3, pp 363-364 (USSR)

TEXT: An attachment intended for use in qualitative and quantitative phase analyses with the apparatus of the type URS-50-I is described. If a thermostat is used, high-precision determinations of the lattice constants can be performed as well. The base plate of the attachment is fastened to the goniometer table, and is connected with the overlying table of the attachment by means of a differential screw (Fig 1). On this table, there is a support with a gear and the sample holder. The sample can be rotated at a speed of 20 rpm by a motor of the type SD-60 by means of the gear. On the other hand, the table can be placed in a position perpendicular to the surface of the sample by the differential screw. The calibration of the attachment is performed by using special adjusting parts (Fig 2). Methods used to ascertain the zero position of the counter slit are described. There are 3 figures and 3 references, 2 of which are Soviet.

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Attachment to the Diffractometer of the Type URS-50-I Used for Phase Analysis

S/032/60/036/03/045/064
B010/B117

ASSOCIATION: Nauchno-issledovatel'skiy institut asbesta, slyudy, asbesto-tsementnykh izdeliy i proyektirovaniya stroitel'stva predpriyatiy slyudyanoy promyshlennosti (Scientific Research Institute of Asbestos, Mica, Asbestos Cement Products, and for Planning the Construction of Plants of the Mica Industry)

Card 2/2

VOLKOV, O.S.

7

Use of URS-501 apparatus in diffractometric analysis of monocrystals. M. M. Umanskii, D. M. Kheiker, and O. S. Volkov (M. V. Lomonosov State Univ., Moscow). *Kristallografiya* 3, 43-8(1958).—A detailed description of the app. is given. By combination with a goniometric device the URS-501 app. (*C.A.* 52, 5117d) can be converted to a diffractometer for measurement of the angular dimensions, cryst. lattice parameters, and integral intensity of reflection of x-rays by monocrystals. A. P. Kotloby

Distr: 4E4c/4E4j

VOLKOV, O.S.; KHEYKER, D.M.

Attachment to the URS-50 diffractometer for phase analysis. Zav. lab. 26 no.3:363-364 '60. (MIRA 13:6)

1. Nauchno-issledovatel'skiy institut asbesta, slyudy, asbotsementnykh izdeliy i proektirovaniya stroitel'stva predpriyatiy slyudyanoy promyshlennosti.
(Diffraction) (Crystal lattices)

VOLKOV, O.S.

UMANSKIY, M.M.; KHEYKER, D.M.; VOLKOV, O.S.

Ways of using URS-50I apparatus as diffractometer for monocrystals. Kristallografia 3 no.1:43-48 '58. (MIRA 11:5)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova
(X-rays--Diffraction) (Scintillation counters)

KHEYKER, D.M.; VOLKOV, O.S.

High temperature attachment to X-ray diffractometer. Zav.lab. 29 no.2:225-227 '63. (MIRA 16:5)

1. Nauchno-issledovatel'skiy institut asbesta, slyudy, asbestotsementnykh izdeliy i proyektirovaniya stroitel'stva predpriyatiy slyudyanoy promyshlennosti.
(X rays--Equipment and supplies)

MALININ, Yu.S., kand.tekhn.nauk; RYAZIN, V.P., inzh.; VOLKOV, O.S., inzh.

Quantitative X-ray phase analysis of clinker. Trudy NIITSement no.17:3-12 '62. (MIRA 16:5)
(X rays--Industrial applications) (Cement clinker--Analysis)

MIKHALEVSKAYA, Ye.S.; VOLKOV, O.S.; BULANOVA, L.P.; BERKOVICH, T.M.

Effect of the water-cement factor on the kinetics of cement and asbestos cement hydration. Trudy NIIAsbesttsementa no.15:31-37 '62. (MIRA 16:7)

(Cement) (Asbestos cement)

MATVEYEV-MOTIN, Aleksey Stepanovich, kand. sel'khoz. nauk; VOLKOV, O.V., red.; PITERMAN, Ye.L., red.izd-va; SHIBKOVA, R.Ye., tekhn. red.

[Growth, productivity, and production of forests] Prirost, proizvoditel'nost' i produktivnost' lesa. Moskva, Goslesbumizdat, 1962. 116 p. (MIRA 15:6)

(Forests and forestry)

VOLKOV, P.

SOKOLOV, M., inzh.-polkovnik; DVORNIKOV, V., kapitan; VOLKOV, P., podpolkovnik.

Inventiveness and improvements among the troops: from experience. (MIRA 11:3)
Voen. vest. 35 no.8:31-36 Ag '55.
(Inventions) (Russia--Army--Personnel management)

VOLKOV, P.

Making astronomic observations by various time posision lines. (MIRA 14:6)
Mor.flot 21 no.1:17-20 Ja '61.

1. Starshiy inzh. Gidrograficheskogo predpriyatiya Gidrograficheskogo upravleniya Glavsevmorputi.
(Nautical astronomy)

VOLKOV, P.

New exploration of the relief of the Greenland Sea bottom. (MIRA 14:6)
Mor.flot 21 no.3:35-37 Mr '61.

1. Nachal'nik gruppy Gidrograficheskogo predpriyatiya Glavsevmorputi.
(Greenland Sea--Submarine topography)

Volkov, P.

VOLKOV, P., kand.tekhn.nauk.

Reconstruction of SRN-4 transplanting machines. Tekhsov. MTS 18 no.20:13-16 '57. (MIRA 10:10)
(Planters (Agricultural machinery))

VOLKOV, P.

Equipment for mechanical opening and closing of doors. Pozh.delo 3 No.6:22 Je '57. (MLRA 10:7)
(Fire Departments--Equipment and supplies)

BURDASTYKH, Yegor, tekhnolog (g.Orel); MAKAROV, V. (g.Arzamas); KARPUSHCHENKO, V. (Leningrad); SHTENNIKOV, F., personal'nyy pensioner (g.Gor'kiy); GODILO, A., kontrol'nyy master (g.Cherkessk); VOLKOV, P., inzh.-tekhnolog (g.Cherkessk); BURLAK, M. (g.Makeyevka); BELYAYEVSKIY, V., inzh. po izobretatel'stvu i ratsionalizatsii (g. Kirovakan); TYURIKOV, A. (g.Omsk)

This is the way we live. Izobr.i rats. no.1:11 '64. (MIRA 17:4)

1. Zavod imeni Medvedeva (for Burtdastykh). 2. Chlen Soyuza zhurnalistov SSSR (for Godilo). 3. Cherkesskiy zavod kholodil'nogo oborudovaniya, Cherkessk (for Godilo, Volkov). 4. Chlen redkollegii mnogotirazhki makeyevskogo metallurgicheskogo zavoda "Kirovets", g. Makeyevka (for Burlak). 5. Rukovoditel' Omskogo obshchestvennogo konstruktorskogo byuro zheleznodorozhnikov (for Tyurikov).

VOLKOV, P.

Investigating the approaches to the Antarctic Islands of Balleny and Peter I. Mor. flot 22 no.11:40-42 N '62. (MIRA 15:12)

(Antarctic regions--Russian explorations)

3(0)
AUTHOR: Volkov, P. A.

SOV/50-58-12-10/20

TITLE: On the Mechanism of the Breakage of Air Bubbles (O mekhanizme rezrusheniya vozdushnykh puzyr'kov)

PERIODICAL: Meteorologiya i gidrologiya, 1958, Nr 12, pp 38-40 (USSR)

ABSTRACT: The mechanism mentioned in the title has been neglected for a long time by the scientists. The author does not fully agree with L. I. Belyayev (Refs 1,2) whose considerations he considers to be insufficient. Belyayev whose papers have not been read abroad did not examine his considerations (Figs 1,2) experimentally. The author mentions his own slow-motion pictures of the emergence, the staying on the water surface, and the breakage of the air bubbles (Fig 3). In contrast with Belyayev's opinion (Fig 2a) the bubble does not move completely on the surface (Fig 3a), about half its body forms a correspondingly deep hollow on the surface. Figure 3b shows the moment of the breakage of the bubble shell. A funnel-shaped hollow has formed on the surface. A thin water jet comes out from the middle of the funnel. Neither details of the shell rupture nor its consequences could be observed on the pictures. (Fig 3v). The central water jet becomes thicker and strongly

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expands upwards. At the top of the water jet a visible water drop is detached into the air. It is prolate-cylindrical. On further pictures (not shown) the flight of the released drop further upwards and the flattening of the central water jet in the middle of the funnel can be seen. On the surface another hollow is formed, which has, however, a longer diameter. From the rims of this funnel concentric surface waves propagate. Finally, the hollow disappears and the waves die down. The author describes the probable process as he understands it according to the above observations. The bubble remains 2-5 sec. on the surface until its destruction. It could not be found out to what forces this rupture of the shell is due. Also its splinters are so small that they so not appear on the picture. In this point the author agrees with the scheme set up by Belyayev. Several drops can be jetted forth up to a height of 20 cm. Thus, foaming is a very productive source for squirting small and very small drops. They are seized by the wind and carried off to higher air layers which are less saturated with moisture. The rate of evaporation of these drops is very high

(almost as in the vacuum, Ref 4). Thus, it may be maintained that foaming which represents the main factor in the formation of aerosols considerably increases evaporation. There are 3 figures and 5 references, 4 of which are Soviet.

3 (7)

AUTHOR: Volkov, P. A. SOV/50-59-3-8/24

TITLE: On the Mechanical Evaporation on the Water Surface (O mekhanicheskom isparenii s vodnoy poverkhnosti)

PERIODICAL: Meteorologiya i gidrologiya, 1959, Nr 3, pp 37 - 39 (USSR)

ABSTRACT: Using special methods of investigations the author tried to explain the quantitative aspect of mechanical evaporation on the surface of the water as it actually takes place in nature. In contrast to the usual methods experiments were made to bring about certain phenomena which are characteristic of the moving surface of the water. It is true, it was not possible to reproduce the moving surface as it actually occurs in nature but foam formation could be brought about rather easily. The paper by L. I. Belyayev (Refs 1, 2) shows how far foam formation may influence mechanical evaporation. The author of the present paper made a time-lapse photograph of the water bubbles in the stage of emerging, staying on the water surface, and of their destruction (Ref 3). These photographs confirm the considerations made by Belyayev. The experimental investigations were carried out by the author on the island of Artem in the Caspian Sea. The

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On the Mechanical Evaporation on the Water Surface SOV/50-59-3-8/24

evaporation surface was in the area of the Kaspiyskaya nauchno-issledovatel'skaya stantsiya (Kaspiyskaya Scientific Research Station) of the Institut okeanologii AN SSSR (Institute of Oceanology AS USSR). 4 GGI-3000 evaporimeters were used. Three of them were provided with a device for foam formation of different intensity. The results are shown in a diagram. They demonstrate that foam absolutely increases the rate of evaporation. This influence becomes manifest only after a certain intensity is attained. Furthermore, the diagrams show that the difference in the intensity of evaporation increases with the decrease of the salt content of the evaporating water at the expense of foam formation. There are 2 figures and 3 Soviet references.

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AUTHOR: Volkov, P. A.

S/050/60/000/04/010/018
B007/B017

TITLE: On the Transfer of Liquid in the Propagation of Surface Waves

PERIODICAL: Meteorologiya i gidrologiya, 1960, Nr 4, pp 38-41 (USSR)

TEXT: The complicated problem concerning the propagation of liquid with the depth of the shifted water mass, the drift current with the propagation of the waves in the littoral wave zone and the drift velocity has been little investigated so far. In this connection, mention is made of studies made in the research laboratories of P. K. Bozhich (Ref 1), A. A. Dmitriyev (Ref 2), R. Russell (Ref 7), and R. Bagnold (Ref 5), as well as of theoretical investigations by A. A. Dmitriyev (Ref 2) and M. Longuet-Higgins (Ref 6). Here, the author offers experimental results obtained by himself in the study of liquid propagation by waves in the various littoral zones. Experiments were conducted at the experimental station of the Chernomorskaya stantsiya Instituta okeanologii AN SSSR (Black Sea Station of the Institute of Oceanology of the AS USSR). Amaranth served as a dye. Figure 1 shows the curves for the water drift velocity at various depths as dependent on wave height and wave length. These curves may be divided into three sections: two boundary layers (on the solid bottom of the current and on the liquid surface) and the layer in between with a rather large drifting liquid mass. Figure 3 shows the amount and direction of the velocity of the drifting liquid current on the

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surface as a function of the ratio between wave length and current depth. The corresponding curves were drawn through the experimental points, and two clear and independent curve branches were obtained: one in the range of positive velocities (i.e., in the direction of the wave propagation) and the other in the direction of negative velocities. A jump occurs in the curves at a ratio of 3.5 ÷ 4.5 between wave length and current depth. It may be therefore assumed that in this range the drift current may change its direction. As far as this range extends (as seen from the sea) the total propagation of the water occurs in the boundary layers in the direction of wave propagation, whereas in the intermediate layer it takes place in the opposite direction. In the littoral wave zone it is the other way round. This finding also explains the contradictions contained in the papers by P. K. Bozhich and R. Bagnold on the one hand, and in those by A. A. Dmitriyev and R. Russell on the other. In addition, experiments clearly showed the presence of a drift near the ground, which moved in the direction of the wave propagation in all cases. This drift, caused by a passage of successive waves, was delimited by a clearly marked 1-3mm high layer. Special experiments were made to clarify the behavior of the current with a change in the bottom roughness. These experiments revealed that water drift is conserved in the 1-3 mm high layer near the ground in the direction of the wave propagation on a horizontal bottom exhibiting the roughness of a planed

On the Transfer of Liquid in the Propagation of Surface Waves

S/050/60/000/04/010/018
B007/B017

board, and on the surface of a well piled sand. The layer of the drift current near the ground also reaches the coastal slope and moves along the latter up to the breaking line of the waves. Experiments showed that this line parts the coastal slope into two independent water circulation systems (with a motion in the coastal zone). The drift velocity rises on smooth bottom with an increase in wavelength and wave height. There are 4 figures and 7 references, 4 of which are Soviet.

Card 3/3

VOLKOV, P.A.

Some data on the rate of mechanical evaporation from the water surface. Trudy Inst. okean. 37:149-154 '60. (MIRA 14:8)
(Evaporation) (Foam)

VOLKOV, P.A.

Large-scale velocity pulsation in the bottom layer of the wave flux. (MIRA 14:3)
Meteor. i gidrol. no.4:37-40 Ap '61.
(Hydrodynamics)

VOLKOV, P., inzh.-gidrograf

Accuracy of measuring the altitude of celestial bodies at sea. (MIRA 13:9)
Mor. flot 20 no.9:15-17 S '60.

1. Nachal'nik gruppy obrabotki antarkticheskikh materialov Gidrograficheskogo predpriyatiya Glavsevmorputi Ministerstva morskogo flota.
(Nautical astronomy)

VOLKOV, P.A.

Resistance coefficient of round membranes in the wave flux of a liquid. Okeanologiia 1 no.5:911-914 '61. (MIRA 15:3)

1. Institut okeanologii AN SSSR.
(Waves)

VOLKOV, P.A.; IONIN, A.S.

Magnitude of nonerosive wave velocities for gravel. Okeanologiia 2 no.3:410-418 '62. (MIRA 15:7)

1. Institut okeanologii AN SSSR.
(Waves) (Gravel)

VOLKOV, P.A.

Connection between noncutting and disrupting critical velocities of the wave flux. Okeanologiia 2 no.6:1020-1023 '62. (MIRA 17:2)

1. Institut okeanologii AN SSSR.

VOLKOV, P.A.

Hydraulic characteristics of shell sediments. Okeanologiia 3 no.4:680-683 '63. (MIRA 16:11)

1. Institut okeanologii AN SSSR.

VOLKOV, P.A.

Significance of maximum bottom velocities for wave transformation in the shore zone. Okeanologiia 1 no.3:432-438 '61.
(MIRA 16:11)

1. Institut okeanologii AN SSSR.

VOLKOV, P. A.,

"New data on the wave flow bottom layer regime"

Report to be submitted for the 13th General Assembly, Intl. Union of Geodesy and Geophysics (IUGG), Berkeley Calif., 19-31 Aug 63

VOLKOV, P. A.

"Sedimentation Tank for Hydrostations and Sprinkler Systems Using Small Mountain Rivers" Cand Tech Sci, All-Union Sci Res Inst of Hydraulic Engineering and Soil Improvement, Min Agriculture USSR, Moscow, 1955. (KL, No 12, Mar 56)

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AUTHOR: Volkov, P. A.

TITLE: The coefficient of resistance of round plates in a wave flow of liquid

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 5, 1962, 8, abstract 5V57 (Okeanologiya, 1, no. 5, 1961, 911-914)

TEXT: In experimental research in basins the dynamic flow pressure is usually measured in place of the measurement of the velocity, after which the true rates of flow are obtained from the measured pressures. In the wave flow of liquid the problem is complicated by the fact that the flow alters the movement direction and the time rate. ВДК(VDK) devices, whose receiving part is a thin, round plate, are being employed in the USSR to record the pressure of the flow of liquid. Data, obtained when testing the VDK receiving parts under laboratory conditions, are cited. The investigations were made in a wave flow at a flow depth of 40 cm —and the following surface-wave parameters: a wave height of from

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5.0 to 17.0 cm, a length of from 90 to 450 cm, and a period of from 0.7 to 2.0 sec. The resistance of a round plate, 15 and 20 cm in diameter, was investigated in fresh water at a temperature of from 16 to 20°. Wave flow rates of from 3 to 30 cm/sec and a pressure of from 0.02 to 0.6 g/cm^2 were obtained. It was established that, at velocities above 10 cm/sec, the wave flow pressures (p) depend on the velocity (v); the relation can be described by the equation: $v = 35.5\sqrt{p}$. A graph is given for the dependence of the resistance coefficients of a round plate on the Reynolds number. Comparison of the curves of the dependence of a round plate's resistance coefficients on the Reynolds number in unidirectional and wave flows shows that the coefficient's change in a wave flow occurs much more intensively, and that the transition to a sharp increase is accomplished much earlier. The possibility of the practical utilization of the experimentally obtained data is indicated. [Abstracter's note: Complete translation.]

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